REMARKS

Claims 1 - 3, 11 - 13, and 21 - 23 have been amended. Claims 31 - 33 have been added. No new matter has been introduced with these amendments or added claims, which are supported in the specification as originally filed. Claims 1 - 33 are now in the application.

The amendments to independent Claims 1, 11, and 21 are directed toward improving the readability of the first element, but do not alter the scope of that element. As originally filed, dependent Claims 2, 12, and 22 were overly restrictive of Applicants' invention. Therefore, the amendments to dependent Claims 2, 12, and 22 remove (to newly-added dependent Claims 31 - 33) the second element of Claims 2, 12, and 22 as originally filed.

The amendments to independent Claims 3, 13, and 23 are directed toward clarifying the references to "host" in the second element; clarifying the third element; and removing the final element, which was overly restrictive of the invention.

With reference to the amendment to the second ("receiving") element of Claims 3, 13, and 23, the "host" to which this limitation pertains is not the server at which the requests are received: it is the host from which the connection request originated. These claims are directed toward controlling the number of threads that are concurrently assigned to processing work for any particular host, and therefore it is this requesting host that is of interest for the claim language. By controlling the number of threads performing work for each host, the likelihood of a failing host causing serious degradation to the performance of a server is reduced. See, for example, p.

18, lines 13 - 18 of Applicants' specification, where this is discussed. See also p. 16, lines 18 - 19 ("... for each distinct host address with which the server application communicates", emphasis added) and p. 17, lines 13 - 14. This clarification of the "host" term does not alter the scope of these independent claims.

For clarification, the phrase "individual ones" has been replaced by "an individual one" in the third ("retrieving") element of Claims 3, 13, and 23. That is, a single "selected" request is only removed by "an individual one" of the threads, even though *each* individual one may itself retrieve *other* selected ones of the requests.

With reference to the final ("returning") element of Claims 3, 13, and 23, the requeuing of a request (or, more correctly, the requeuing of a connection; see p. 15, lines 2 - 3 and p. 20, lines 15 - 16) is not essential to the novelty of Applicants' invention. Therefore, the final element of these claims, where this was referenced, has been removed.

Thus, it can be seen that no new matter has been introduced with the amendments made herein.

I. Drawing Corrections

Proposed substitute drawings are provided herewith for Figs. 3, 4, and 5. The amendments made to these figures are described above in "Amendments to the Drawings". No new matter is added with these drawing corrections, which are supported in the specification as

originally filed.

II. Rejection Under 35 U.S.C. § 102(e)

Paragraph 4 of the Office Action dated April 23, 2003 (hereinafter, "the Office Action") states that Claims 1 - 2, 11 - 12, and 21 - 22 are rejected under 35 U.S.C. § 102(e) as being anticipated by U. S. Patent 5,761,507 to Govett. This rejection is respectfully traversed.

Applicants' independent Claims 1, 11, and 21 contain limitations which are not found in the Govett reference. The third element of these claims references a "wide queue", which comprises "a plurality of queues wherein each of said queues is separately synchronization-protected". See Fig. 3, where this wide queue is depicted at element 310, and comprises (in this example) a plurality of queues 311 - 314. The second element of Applicants' independent Claims 1, 11, and 21 references "an incoming queue", from which client requests are transferred to the wide queue.

Govett has no teaching of a queue that comprises a plurality of queues. In fact, the same queue is referenced in the Office Action for Applicants' limitation of "incoming queue" as is used in the citations for Applicants' "wide queue". That is, p. 3 of the Office Action cites col. 7, lines 9 - 50 as teaching Applicants' incoming queue. What is found in the cited text is a discussion of Govett's "request queue 310". Page 3 of the Office Action then cites this same text as teaching Applicants' limitations of transferring requests to a wide queue. Obviously, Applicants' claims are discussing distinct queues: that is, the incoming queue is distinct from the wide queue. (The

transferring from one queue to another is discussed on p. 15, lines 18 - 20 of Applicant's specification.) Thus, Govett's request queue 310 cannot be used as teaching both of these types of queues. Furthermore, as stated above, Govett does not teach any queue that is comprised of a plurality of other queues, and thus Govett has no counterpart to Applicants' claimed wide queue.

In analyzing the limitation from Applicants' independent Claims 1, 11, and 21 that specifies the wide queue is comprised of a plurality of queues, the Office Action cites col. 11, lines 55 - 67 and col. 6, line 53 - col. 7, line 39. The cited text in col. 11 describes how a newly-started server registers itself with Govett's transaction manager ("XMAN"). This has nothing to do with queues. The port mapper is simply informed of the service provided by the new server, if this is the first server to be started. (Otherwise, since all of the servers provide an identical service, the port mapper already knows what service is provided. See, for example, col. 11, lines 35 - 43.) The cited text in cols. 6 and 7 describes how a reference to an inbound request is placed on request queue 310, from which an available server will retrieve it. (Col. 6, lines 53 - 59.) That is, instead of placing the entire request itself on the server, a handle that refers to the request is preferably used, for better performance. (Col. 6, lines 59 - 66.) This text continues by describing how a new server is started when it is determined that the number of waiting requests has reached the value of a configuration parameter (element 304 in Fig. 3) that controls the starting of new servers. (Col. 7, lines 9 - 17.) However, another configuration parameter is also checked, where this other parameter (element 306 in Fig. 3) controls the overall total of running servers. (Col. 7, lines 19 - 21.) When dequeuing requests from request queue 310, the transaction manager is responsible for determining which server the dequeued request should be assigned to. (Col. 7,

lines 25 - 28.) The remaining text merely describes how requests in request queue 310 advance through that (single) queue, and how the determination of whether to start a new server is made iteratively. (Col. 7, lines 29 - 39.)

None of this text discusses a queue of queues, and thus a *prima facie* case of anticipation has not been made out as to Applicants' independent Claims 1, 11, and 21. These independent claims, as well as their dependent Claims 2, 12, 22, and 31 - 33, are therefore deemed patentable. Accordingly, the Examiner is respectfully requested to withdraw the §102 rejection.

III. Rejection Under 35 U.S.C. § 103(a)

Paragraph 9 of the Office Action states that Claims 3 - 10, 13 - 20, and 23 - 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Govett in view of U. S. Patent 6,427,161 to LiVecchi. This rejection is respectfully traversed.

As stated above, Applicants' independent Claims 3, 13, and 23 are directed toward controlling the number of threads that are concurrently assigned to processing work for any particular host. Therefore, the fourth ("determining") element of these claims specifies that a check is made to see how many worker threads are already processing work for this host, and the fifth ("processing ... if") element specifies that the request is only processed if that number is less than some upper limit. Page 5 of the Office Action cites col. 7, lines 9 - 50 of Govett as teaching the determining of how many connections exist to a host, as the number of threads currently assigned to that host. As explained by the comments above, and as now clarified in these

independent claims, the "host" in Applicants' Claims 3, 13, and 23 does not refer to the server that is processing the requests -- it refers to the requester. (See p. 13, lines 5 - 7 of Applicants' specification, where the term "host" is defined in terms of the entity from which a request was received.) The cited text from Govett pertains to how many requests have been received and queued on request queue 310, but this text has no discussion of identifying the requesting entity from which those requests were received (or of performing any tests or conditional processing based on that information). LiVecchi does not teach the limitation of identifying the host from which a client request was received, or using an upper limit on the number of connections to a particular host in order to determine whether a request can be processed.

Because the references do not teach the limitations of Applicants' independent Claims 3, 13, and 23, a *prima facie* case of obviousness has not been made out as to those claims. These independent claims, as well as their dependent Claims 4 - 10, 14 - 20, and 24 - 30, are therefore deemed patentable. Accordingly, the Examiner is respectfully requested to withdraw the §103 rejection.

IV. Conclusion

Applicants respectfully request reconsideration of the pending rejected claims, withdrawal of all presently outstanding rejections, and allowance of all claims at an early date.

Respectfully submitted,

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Attachments: Replacement Sheets (3)